

MARINE CORPS WARFIGHTING LABORATORY

The Fabrique Nationale (FN) **M3M .50 Caliber** Weapon System is currently being evaluated as a possible solution for the common assault support defensive weapon system, as well as a possible replacement for the aging M2 Machine gun. The M3M represents an improvement in the rate of fire, safety, accuracy, lethality, maintainability, and reliability over the current fielded weapons.

Background: The M3M effort was initiated by the Marine Corps Warfighting Lab (MCWL) in close cooperation with MAWTS-1 in May of 2001 to assess the effectiveness of the M3M System on board several different assault support helicopters. While the system is primarily being evaluated on board the CH-46E, CH-53D/E, and UH-1N, MCWL is also examining vehicle and ground-mounted application of the M3M. In FY '04, MCWL will continue the M3M effort by leading the integration effort of the M3M into the V-22 Osprey. The V-22 will initially be equipped with a ramp mounted M3M weapon system. MCWL has completed initial assessments of the M3M on the HMMWV and ground mounted tripod.

The M3M is a weapon system rather than just a machine gun. The system has three parts. The Machine Gun, the Medium Pintle Head (MPH) or "Soft Mount", and the Cradle to integrate the weapon into each particular aircraft or vehicle. The M3M .50 caliber machine gun has a rate of fire of 1,100 rounds per minute (RPM) and fires all NATO standard .50 caliber ammunition. The M3M fires from an open breech whereby eliminating cook-off hazards and increasing system safety. The soft mount technology absorbs recoil and counter-recoil forces to about 1/3 the rate of the current M2/XM-218 .50 caliber machine guns.

The third phase of the assessment was completed at MAWTS-1 in Oct. '02 and the fourth phase of assessment is currently underway at NAVAIR on the CH-53E RMWS. MAWTS-1 conducted each of the first three phases of the assessment during their bi-annual weapons and tactics instructors (WTI) course. The WTI classes enable assessment of the M3M in all mission profiles, day and night.

M3M .50 CALIBER MACHINE GUN

fact sheet



Weapon System data:

- Weight 79.9 lbs
- Sustained Rate of Fire - 200 rpm
- Improved Rate of Fire (1,100 RPM vs. 550)
- Improved Barrel Life (10,000 rds vs. current 3,000)
- Improved Safety (Open breech; eliminates cookoff)
- Reduced Recoil (1/3 of standard .50 caliber weapons)
- Integrated Illuminator/Laser Spot (Day/Night Capable)
- Increased Ammo Capacity (600 rds can vs. 100 rds)

Initial Results: Three phases of the M3M assessment have been completed at MAWTS-1 as part of the WTI courses. The increased accuracy, reduced recoil, increased ammo capacity, day/night capability, and increased rate of fire have been noted as significant improvements over current capabilities. The M3M has performed effectively thus far.

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